

# Acupuncture and MS

## THE BASIC FACTS

### MULTIPLE SCLEROSIS



Acupuncture is one form of traditional Chinese medicine that is widely used throughout the world. In the United States, acupuncture was relatively rare until the early 1970s. Since then, it has grown quickly in popularity, and today, possibly a million Americans use acupuncture yearly. The frequency of acupuncture being used among people with MS in the United States and Canada is not known, but based on two large surveys, it may be higher than in the general population.

## The theory

There are major conceptual differences between Western medicine and traditional Chinese medicine. For example, Chinese medical theory does not include the concept of a nervous system. In Western science and medicine, the nervous system is seen as a critical component in understanding and treating many diseases. Furthermore, while “causality” (meaning that process “A” leads to process “B”) is fundamental to many Western concepts, Chinese thought assumes that the world is a web-like array of many interrelated processes that cannot be viewed in isolation or in one-to-one relationships with each other.

Acupuncture, and traditional Chinese medicine generally, is based on a complex theory of body functioning that involves a flow of energy, or “qi,” through 14 main pathways, or “meridians,” in the body. There is also a balance of opposites known as “yin” and “yang.” According to traditional Chinese medicine, disease states are thought to be a consequence of disrupted energy flow and/or imbalances.

Attempts have been made by scientists to explain some of the pain-relieving effects of acupuncture in Western terms. It has been hypothesized that acupuncture may work by altering the levels of chemical messengers in the body. Specifically, acupuncture may release “opioids” that decrease pain. Other hypotheses propose that acupuncture decreases stress or acts as a placebo. (Improvement occurs because the patient strongly believes the treatment is beneficial.)

In one study using a special type of magnetic resonance imaging (MRI), acupuncture at certain sites produced changes in brain activity. These changes, some of which occurred in pain-relevant brain regions, were present during the time in which the pain-relieving effects were present.

In the end, it may be found that multiple processes are involved in acupuncture’s pain-relieving effects—or that current Western biological concepts are insufficient to explain the processes.

## The procedure

Acupuncture refers to a group of procedures that involve stimulating specific locations on the skin. Most often, this involves the insertion of thin, solid, metallic needles into points on the body’s “meridians”. It is believed that this alters the flow of energy and thereby produces improvement. There are approximately 400 acupuncture points, but usually only four to twelve points are used in a single session.

Other methods for stimulating the skin are also used. The acupuncture points can be stimulated by:

- finger pressure, which is known as acupressure or, in Japan, shiatsu
- small heated cups placed on the points (“cupping”)
- electroacupuncture, which uses electrically stimulated needles
- “moxibustion” in which smoldering fibers of an herb (Asian mugwort or “moxa”) are placed on the points, or used to heat needles after insertion

## Studies in MS

Few clinical studies have been conducted to assess acupuncture effectiveness in people with MS. One preliminary study conducted in Canada evaluated whether acupuncture might improve bladder function in people with MS. This well designed but small study (involving 41 people) suggested that bladder urgency and incontinence might be improved through the use of acupuncture. However, the effect varied depending on the particular acupuncturist performing the procedure.

Several other reported trials of acupuncture in MS involved very small numbers of people and were not well designed. It is difficult to draw any conclusions based on those studies.

Two large surveys—one in the United States and one in Canada—have been conducted involving people with MS and acupuncture. Although the results of surveys are not as convincing as those from clinical trials, they are an important method for generating ideas for further research. The preliminary findings of both studies are similar. In each, 20–25% of the respondents who said they have MS had tried acupuncture, and 10–15% of those who tried it indicated that they planned to continue using it. In both surveys, pain, spasticity, and numbness or tingling were among the symptoms most frequently reported to be improved. Other symptoms that were frequently reported to be improved by acupuncture included fatigue, depression, anxiety, and bowel or bladder function.

## Studies in people *without* MS

A large number of studies have assessed acupuncture for other medical conditions. To evaluate these studies in an objective manner, the National Institutes of Health (NIH), created a 12-member panel in 1997. Based on research data and clinical experience, the panel concluded that acupuncture is a reasonable treatment option for stroke rehabilitation, headaches, and pain (including facial pain, low back pain, and neck pain). Other studies suggested there

were acupuncture-related improvements in anxiety, depression, dizziness, and urinary difficulties.

It is important to remember that people in these studies did not have MS. It cannot be assumed that these same effects would be experienced by people who **do** have MS.

## Effects on the immune system

It is important for people with MS to ask if acupuncture has an effect on the immune system, since inflammation and MS attacks are associated with certain overactive immune functions. At this time, however, the issue is not well understood. Studies focusing on acupuncture's effects on the immune system have been done in people with several forms of cancer and rheumatoid arthritis. Acupuncture has been associated variously with stimulating, inhibiting, and having no effect at all on the immune system. Due to these mixed results, further studies are needed.

## Risks and side effects

In general, acupuncture is a very well tolerated procedure, especially when performed by a well-trained acupuncturist. The NIH panel that evaluated acupuncture stated, “The occurrence of adverse events ... has been documented to be extremely low.” The panel concluded that acupuncture was, “remarkably safe with fewer side effects than many well-established therapies.”

Over a 20-year time period, only 216 serious acupuncture complications have been reported worldwide. Serious complications, such as puncturing a lung, were associated with acupuncturists who were poorly trained.

There are other rare risks. To avoid hepatitis or AIDS, sterile disposable needles should be used. People with heart valves that are damaged or prosthetic should probably not be treated with acupuncture to avoid the risk of infection. People who take blood-thinning medication (warfarin or Coumadin®) may occasionally experience bruising or, more rarely, bleeding complications. Electro-acupuncture may produce heart rhythm abnormalities in people with pacemakers, and the fumes from moxibustion may worsen breathing in people with asthma.

## Practical information

Acupuncture is usually done once or twice weekly. Sessions typically cost \$45–\$100. The length of time required for a course of treatment varies. If a beneficial response occurs, it should usually be noted after six to ten sessions. The length of a complete course of treatment depends on the specific symptoms and the underlying disease. For MS and other chronic diseases, a longer treatment course may be necessary.

In the United States, there are approximately 30,000 licensed acupuncturists. There are 3,000 acupuncturists who have M.D. or D.O. training. Organizations that can be helpful in obtaining information about acupuncture and locating a trained acupuncturist include:

- American Academy of Medical Acupuncture [www.medicalacupuncture.org](http://www.medicalacupuncture.org); 310-364-0193
- The American Academy of Acupuncture and Oriental Medicine [www.aaaom.edu](http://www.aaaom.edu); 651-631-0204
- National Certification Commission for Acupuncture and Oriental Medicine [www.nccaom.org](http://www.nccaom.org); 904-598-1005

## Acupuncture combined with other asian therapies

Traditional Chinese medicine includes Chinese herbal medicine, qi gong, lifestyle advice, t'ai chi and exercise, as well as acupuncture.

There are several important considerations regarding Chinese herbal medicine or, indeed, any type of herbal therapy. Chinese herbal medicine involves treatment with complex mixtures of many different herbs. There may be significant variability in the quality and composition of these preparations. Some chemical compounds in the herbs may be toxic or may interact with prescription medications. The safety of these herbal preparations in people with MS has never been extensively studied.

It is known that some of the herbs used in herbal medicine stimulate the immune system, which, theoretically, may be harmful to people with MS. Some of these potentially harmful, immune-stimulating herbs include: Asian ginseng (*Panax ginseng*), dong quai (*Angelica sinensis*), astragalus (*Astragalus membranaceus*), coix, Epimedium sagittatum,



reishi mushroom (*Ganoderma lucidum*), shiitake mushroom (*Lentinus edodes*), *Acanthopanax obovatus*, *Artemisia myriantha*, *Artemisia annua*, *Salvia Miltiorrhiza*, *Sophora flavescens*, green tea, and licorice.

Asian patent medicine is a form of herbal medicine that typically includes herbs along with minerals and animal parts. Several studies indicate that Asian patent medicine may contain toxic ingredients. One study found that approximately one-third of these preparations contained Western prescription drugs (including diazepam [Valium®], steroids, and prescription asthma medications). Dangerous metals, including arsenic, mercury, lead, and cadmium, have also been found.

While acupuncture is very low risk when properly performed, there are many uncertainties and some clear risks associated with Chinese herbal medicine. Asian patent medicine, should be avoided due to the possible presence of toxic contaminants.

## Conclusion

Whether acupuncture is a good choice for people with MS is difficult to evaluate from a scientific perspective. It may be that acupuncture is helpful for certain MS related symptoms, including pain, spasticity, numbness and tingling, certain urinary symptoms, or depression. However, these symptoms, especially depression, should not be treated by acupuncture alone.

If acupuncture is used, **it should only be used in addition to conventional medicine, in consultation with your physician or other licensed health-care professional.**

While acupuncture may be a reasonable option to manage some MS symptoms, in conjunction with conventional medicine, there is no evidence to suggest that acupuncture can decrease the frequency of MS exacerbations or the progression of disability.

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